

## REMARKS/ARGUMENTS

In the Office Action mailed February 20, 2008, claims 1-7 and 10 were allowed and claims 11-19 were rejected. In response, Applicants hereby request reconsideration of the application in view of the proposed amendments and the below-provided remarks. No claims are added. Applicants submit that the proposed amendments place the present application in condition for allowance or in better conditions for appeal.

For reference, proposed amendments are presented for claims 1, 11, 12, and 14. In particular, the proposed amendment for claim 1 is presented to address some minor grammatical omissions and to correct a reference to the optical converter circuit. The proposed amendment for claim 11 is presented to address some minor grammatical omissions affecting antecedent basis, as indicated by the Examiner, and to incorporate certain limitations previously recited in claims 14 and 15. Accordingly, claim 14 is amended to delete the limitations currently incorporated into claim 11, and claim 15 is canceled. The proposed amendment for claim 12 is presented to correct a reference to the optical converter circuit. Applicants respectfully submit these amendments are supported by the subject matter in the originally filed application.

### Allowable Subject Matter

Applicants appreciate the Examiner's review of and determination that claims 1-7 and 10 are allowed. While the Office Action provides a statement of reasons for the indication of allowable subject matter, the Office Action's statement is directed to specific aspects of certain claims and not necessarily all of the claims. Applicants note that the Office Action's comments may have paraphrased the language of the claims and it should be understood that the language of the claims themselves set out the scope of the claims. Thus, it is noted that the claim language should be viewed in light of the exact language of the claim rather than any paraphrasing or implied limitations thereof.

### Claim Rejections under 35 U.S.C. 112, second paragraph

Claim 11 was rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. In particular, claim 11 was rejected because of

insufficient antecedent basis for the limitation “the optical converter circuit” in line 2. Applicants submit that claim 11 is amended to recite “an optical converter circuit,” as suggested by the Examiner. Applicants appreciate the Examiner’s attention to the language of the claims and submit that this amendment overcomes the indicated rejection. Accordingly, Applicants respectfully request that the rejection of claim 11 under 35 U.S.C. 112, second paragraph, be withdrawn.

#### Claim Rejections under 35 U.S.C. 103

Claims 11, 12, 14, 16, and 17 were rejected under 35 U.S.C. 103(a) as being unpatentable over Imajo (U.S. Pat. Pub. No. 2002/0122233, hereinafter Imajo) in view of Weigand (U.S. Pat. No. 6,489,856, hereinafter Weigand) and Harford (U.S. Pat. No. 5,898,347, hereinafter Harford). Additionally, claim 13 was rejected under 35 U.S.C. 103(a) as being unpatentable over Imajo in view of Weigand and Harford, and further in view of Skroboko et al. (U.S. Pat. Pub. No. 2003/0090320, hereinafter Skroboko). Additionally, claim 15 was rejected under 35 U.S.C. 103(a) as being unpatentable over Imajo in view of Weigand and Harford, and further in view of Kasashima et al. (U.S. Pat. No. 5,694,069, hereinafter Kasashima). Additionally, claims 18 and 19 were rejected under 35 U.S.C. 103(a) as being unpatentable over Imajo in view of Weigand and Harford, and further in view of Farmer et al. (U.S. Pat. Pub. No. 2004/0253003, hereinafter Farmer). However, Applicants respectfully submit that these claims are patentable over Imajo, Weigand, Harford, Skroboko, Kasashima, and Farmer for the reasons provided below.

#### Independent Claim 11

Claim 11 recites limitations related to a particular configuration of resistors and semiconductor switches in which the resistors and a semiconductor switch are connected in series, and the other semiconductor switch is connected in parallel with one of resistors to bridge the corresponding resistor. Applicants note that the statement of reasons provided in the Office Action for allowance of claims 1-7 and 10 acknowledges the allowability of a similar configuration of resistors and semiconductor switches.

Further, Applicants respectfully submit that the reasoning provided for the rejection of claim 11 based on the proposed combination of references is insufficient to establish *prima facie* obviousness of claim 11. In order to establish a *prima facie* rejection of a claim under 35 U.S.C. 103, the Office Action must present a clear articulation of the reason why the claimed invention would have been obvious. MPEP 2142 (citing *KSR International Co. v. Teleflex Inc.*, 550 U.S. \_\_ (2007)).

Here, the Office Action fails to explain why the limitations of claim 11 would have been obvious over the cited combination of references because the Office Action does not provide a reason for combining resistors and semiconductor switches in the specific configuration recited in the claim. In particular, the Office Action does not address any reason to combine the teachings of the references to obtain the configuration recited in the claim. More specifically, the Office Action does not provide any reason to combine a resistor and a semiconductor switch in series with the resistor, another resistor in connected series, and another semiconductor switch in connected in parallel with the other resistor to bridge the other resistor. While the Office Action states, in regard to the rejection of claim 15, that using a semiconductor field effect transistor (FET) switch might provide low power consumption and high switching states, this reasoning merely addresses the use of a particular type of switch. However, this explanation does not establish any reason to combine the various components from the multiple cited references into the specific configuration recited in the claim. In other words, the Office Action does not explain why there might have been a reason to combine, within at least one cascaded attenuator stage, two resistors and two semiconductor switches in the specific configuration in which the two resistors and a semiconductor switch are all connected in series, while the other semiconductor switch is connected in parallel with one of the resistors to bridge the corresponding resistor. Thus, even if there are benefits, generally, to using a semiconductor FET switch or another specific type of semiconductor switch in a circuit, the Office Action does not establish any reason to connect semiconductor FET switches with resistors in the specific configuration recited in the claim. Consequently, the Office Action does not fully explain a reason why the claimed invention would have been obvious because the Office Action does not provide

any reason to connect resistors and semiconductor switches together in the recited configuration.

Therefore, the Office Action does not establish a *prima facie* rejection of claim 11 because the Office Action does not articulate the purported reasons why the claimed invention, as a whole, would have been obvious in light of the combination of cited references. Accordingly, Applicants respectfully submit that the rejection of claim 11 under 35 U.S.C. 103(a) should be withdrawn because the Office Action does not establish a *prima facie* rejection.

#### Dependent Claims

Claims 12-14 and 16-19 depend from and incorporate all of the limitations of independent claim 11. Applicants respectfully assert claims 12-14 and 16-19 are allowable based on an allowable base claim. Additionally, each of claims 12-14 and 16-19 may be allowable for further reasons.

### **CONCLUSION**

Applicants respectfully requests reconsideration of the claims in view of the proposed amendments and remarks made herein. A notice of allowance is earnestly solicited.

At any time during the pendency of this application, please charge any fees required or credit any over payment to Deposit Account **50-3444** pursuant to 37 C.F.R. 1.25. Additionally, please charge any fees to Deposit Account **50-3444** under 37 C.F.R. 1.16, 1.17, 1.19, 1.20 and 1.21.

Respectfully submitted,

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